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Infant Formula Prices and Availability

Final Report to Congress

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Abstract

Over half of all infant formula consumed in the United States is purchased through USDA's Special Supplemental Nutrition Program for Women, Infants, and Children (WIC). WIC receives significant price rebates from manufacturers in return for exclusive rights to provide infant formula to WIC participants. Congress, concerned about the rise in the price of infant formula since the WIC rebate program began, directed USDA's Economic Research Service to report on the availability of infant formula and to compare the cost of formula that is included in the WIC rebate program with the cost of formula not in the program. The findings show that infant formula from the three major manufacturers, which accounts for 99 percent of all sales, was available in supermarkets in each of the market areas examined. Products in powder form from a fourth manufacturer were also available in supermarkets in 83 percent of the market areas. The price of the WIC contract brand for milk-based brands of infant formula (the most common type) exceeded the price of the noncontract brands in 23 of the 55 market areas for powdered formula and in 31 of the 55 market areas for liquid concentrate. The price of the WIC contract brand for soy-based formula exceeded the price of non-contract brands in 33 market areas for liquid concentrate and in 34 market areas for powdered formula. The study involves the first comprehensive national analysis of retail pricing for infant formula, enabling direct examination of prices faced by non-WIC consumers; most previous studies looked only at wholesale prices. This final report bolsters an interim report to Congress, published in April 2001, in two ways: It includes average retail prices for soy-based infant formula, and the price analysis is based on a more refined specification.

Contents

Executive Summaryiii
Definitions	v
Introduction	1
Overview of the WIC Program	3
Participant Eligibility	3
Participant Benefits	3
Food Delivery Systems	4
WIC Infant Formula Rebate Program	5
Domestic Infant Formula Market	8
Source of Data	12
Limitations of the Data	14
Availability of Infant Formula	15
Retail Price of Infant Formula	18
Milk-Based Powdered Formula	19
Milk-Based Liquid Concentrate Formula	19
Soy-Based Powdered Formula	19
Soy-Based Liquid Concentrate Formula	19
Conclusions	29
References	30
Appendix A— History of the WIC Infant Formula Rebate Program	32

Executive Summary

USDA's Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) infant formula rebate program began in the late 1980s when rising infant formula costs led several States to negotiate contracts with the manufacturers. Under the guidance of USDA regulations, WIC State agencies obtain significant discounts in the form of rebates from infant formula manufacturers. In exchange for the rebates, the manufacturers are given exclusive rights to provide infant formula to WIC participants, who now account for over half of all infant formula sold in the United States. While net prices to WIC have declined, the retail price of infant formula has continued to increase. Recently, Congress expressed concern about the rise in the cost of infant formula since the WIC rebate program began and in the decline in the number of infant formula suppliers (H.R. 106-157). In October 2000, Congress directed USDA's Economic Research Service (ERS) to report on the "number of suppliers of infant formula in each state or major marketing area, and to compare the cost of formula that is included in the WIC rebate program versus the cost of formula that is not in the WIC rebate program" (H.R. 106-948). This report presents findings from that study.

The infant formula manufacturing industry is highly concentrated. In both 1987—when the rebate system began—and 2000, three manufacturers accounted for 99 percent of the market, with Ross and Mead Johnson accounting for 87-90 percent of the market in both years. While the concentration of producers has remained high, there have been significant changes among the firms. First, the market shares of the two largest firms have changed markedly over the last decade. This appears to be closely related to changes in the firms' shares of the WIC infant formula market. Mead Johnson's share of the overall infant formula market increased from 27 percent in 1994 to 52 percent in 2000 as its share of the WIC infant formula market almost tripled from 23 to 68 percent over the same period. Second, the third largest producer in 2000—Carnation—entered the U.S. market after the rebate program began. In 2000, Carnation had contracts to provide formula to the WIC program in two States, Florida and New Jersey, and has recently been awarded contracts in Kentucky, North Dakota, and Virginia that began in July 2001. Third, Wyeth, which withdrew from the domestic infant formula market in 1996, reentered the market in 1997 as a manufacturer for PBM, a new firm that markets formula directly to consumers but does not itself produce infant formula. PBM infant formula products are aggressively priced and tend to average almost 40 percent less at retail than Ross and Mead Johnson products.

This is the first national study to analyze infant formula prices at the retail level; most previous studies examined wholesale prices. The use of retail prices has enabled the study to examine directly the prices faced by non-WIC consumers. In addition, previous studies focused on infant formula sold in liquid concentrate form. Since the share of infant formula sales held by powdered formula has been growing and powdered is now the predominant form, this study examines not only liquid concentrate but also powdered formula. The primary source of data for the study is Information Resources Incorporated (IRI) InfoScan, a scanner-based retail sales data product. Aggregate supermarket sales data were obtained for 64 individual local market areas and aggregate national sales data were obtained for supermarkets, drugstores and mass merchandisers.

According to the supermarket data, Mead Johnson, Ross, and Carnation infant formula products were available in each of the 64 market areas in 2000. Milk-based Wyeth products, distributed by PBM, were found in supermarkets in 53 of the 64 market areas (83 percent), and soy-based products were found in supermarkets in 59 market areas (92 percent). Due to the unavailability of market area data for drugstores and mass merchandisers, we were unable to determine if Wyeth products were completely absent in the other 11 markets. At the national level, over 40 percent of Wyeth sales by volume are made through drugstores and mass merchandisers.

The study also examines average retail prices in supermarkets in the individual market areas. Supermarkets account for over two-thirds of retail sales of infant formula and the majority of WIC formula sales. Because prices vary widely by product form, product base, package size, and other attributes, the price analysis is confined to the most commonly available products by brand. The study was able to assign a single WIC contract brand in 55 of the 64 market areas. For the remaining nine market areas, which spanned State lines and had different WIC formula contract manufacturers, it was not possible to assign a single WIC contract brand in those markets.

In the 55 market areas with a single WIC-contract brand, Mead Johnson had 34, Ross had 17, and Carnation had 4 areas. The average retail price of formula varied widely by manufacturer and among the market areas. For example, the price of 26 ounces of reconstituted standard milk-based powdered infant formula ranged from \$1.39 to \$3.12. This study's results indicate that, within market areas, there is no clear and consistent relationship between a formula's being the WIC contract brand and having the highest average retail price. Among milk-based brands of infant formula (the most common type), the price of the WIC contract brand exceeded the prices of the noncontract brands in 23 of the 55 market areas for powdered formula and 31 of the 55 market areas for liquid concentrate. For soy-based formula, which accounts for a small share of the market relative to milk-based formula, the price of the WIC contract brand exceeded the prices of the noncontract brands in 33 market areas for liquid concentrate and in 34 market areas for powdered formula.

In April 2001, ERS published an interim report to Congress on this study. This final report bolsters the interim report in two ways. First, it examines average retail prices for soy-based infant formula products in addition to milk-based products. Second, the price analysis is based on a more refined product specification.

Definitions

Infant formula: as defined in the Federal Food, Drug, and Cosmetic Act, infant formula means a food that purports to be or is represented for special dietary use solely as a food for infants by reason of its simulation of human milk or its suitability as a complete or partial substitute for human milk (FDC Act 21 U.S.C. 321 (z)).

Exempt infant formula: as defined in the Federal Food, Drug, and Cosmetic Act, exempt infant formula is any infant formula that is represented and labeled for use by an infant who has an inborn error of metabolism or a low birthweight or who otherwise has an unusual medical or dietary problem (FDC Act 21 U.S.C. 350a).

Standard infant formula: as defined in this report, standard infant formula includes milk-based and soy-based infant formulas, excluding specialized infant formula, that meet the nutritional needs of most full-term, healthy infants less than 1 year old.

Specialized infant formula: as defined in this report, specialized formula includes formula for children with special nutritional requirements, such as hypoallergenic formula, thickened formula, formula to treat diarrhea, formula for premature babies, formula for infants with other diseases or disorders such as PKU, as well as lactose-free (nonsoy) formula, and formula marketed to children 1 year of age or older. (Special-

ized infant formula may include some nonexempt infant formula.)

Contract brand: all the infant formula, excluding exempt infant formulas, produced by the manufacturer awarded the WIC contract.

Primary contract brand: the standard infant formula on which bids are solicited.

Manufacturer's wholesale price: the manufacturer's lowest national wholesale price per unit for a full truckload of infant formula.

Medical detailing: the manufacturer's practice of contacting hospitals and medical practitioners directly, providing them with free or discounted infant formula, and encouraging physicians to recommend one particular brand of formula (GAO, 1990). Medical detailing also includes providing hospitals with "discharge packs" containing formula samples, cents-off coupons, and company advertising aimed at mothers when they leave the hospital with their babies; such activities may serve as an implicit endorsement of a particular brand of infant formula by the hospital. Medical detailing also includes other types of support, such as donating equipment and services to hospitals (e.g., incubators, nursers, calendars, pens, etc.) and providing funding for research on infant nutrition to hospitals and physicians.